

## **REMARKS**

This amendment is being filed responsive to the Final Office Action dated March 22, 2007, and accompanies a Request for Continued Examination. For the following reasons, this application should be considered in condition for allowance and the case passed to issue.

Claims 1 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Rosencwaig et al. (hereafter “Rosencwaig”). Claims 2-10 and 12-18 were rejected 35 U.S.C. §103(a) as being unpatentable over Rosencwaig in view of Toida. Claims 19 and 20 were rejected under U.S.C. §102(b) as being anticipated by Rosencwaig.

Claims 19 and 20 have been canceled, thereby obviating the rejection of these claims. The limitations of claims 2-4 have been incorporated into independent claim 1. As well, the limitation of claims 12-14 have been incorporated into independent claim 11.

It is respectfully submitted that the amended claims are patentably distinct over the art of record, including those references cited in the Information Disclosure Statement provided on even date herewith.

The rejection of claims 1 and 11 under U.S.C. 35 §103(a) has been obviated by amendments made to the claims to include the limitations of claims 2-4 and 12-14, respectively. The following discussion therefore focuses on the combination of Rosencwaig and Toida, and the obviousness rejection under 35 U.S.C. §103(a) of previous claims 2-4 and 12-14. The following is a comparison of the claims as currently amended with these references.

As recited in claim 1, an apparatus is provided for measuring surface topography of a surface. The apparatus comprises a linearly polarized light source that generates a light beam and optics that focus the light beam on a surface to be measured such that a normally incident beam reflection is provided. The optics include polarization optics such that the incident beam

has a first polarization and a reflected beam from the surface has a second polarization different from the first polarization. The optics include: a half-wave plate that receives light beams from the linearly polarized light source, a long working distance microscope objective positioned to receive light beams as an input from the half-wave plate and output a converging light beam, and a polarizing beam splitter positioned to receive as an input the output of the half-wave plate and produce as output a light beam with the first polarization. A position sensitive detector is positioned to detect the reflected beam. None of the references, either alone or in combination, shows or suggests the invention as now claimed.

Rosencwaig, U.S. Patent 4,522,510, relates to film thickness measurement with thermal waves in which heating and detection laser beams are focused onto a film, normal to the surface of the film with two beams that are parallel and non-coaxial. Rosencwaig describes that their technique of employing one laser for generating and another for detecting a thermal wave is quite different than conventional optical beam deflection techniques where the probe beam skims over the surface of a sample. The Examiner concedes that Rosencwaig is silent regarding polarization optics such that the incident beam has a first polarization and the reflected beam from the surface has a second polarization that differs from the first polarization. The Examiner continues by asserting the use of polarization optics that changes that polarization state of incident polarized beams is known in the art. The alleged motivation for making such a modification to Rosencwaig is that a more precisely defined polarized beam would be provided. However, there is nothing to suggest that a second polarization is more precisely defined than a first polarization. Such a motivation to provide the claimed polarization optics is therefore illusory and not fairly suggested by the art of record or any reference noted by the Examiner.

Toida, U.S. Patent No. 5,428,447 describes method and apparatus for obtaining 3-dimensional information of samples using computer tomography. The reference of Toida is said to disclose a half-wave plate that receives a light beam, a long working microscope objective, and a polarizing beam supporter, with respect to claims 2-4. It is not disputed that such optical components are employed in certain arrangements. However, the issue is whether it would be obvious to combine such elements with those described in Rosencwaig in the same manner as claimed in the present invention, without the use of impermissible hindsight. Otherwise, every invention would be obvious based upon a selection by the Examiner of disparate components. In Toida, an apparatus is provided for obtaining 3-dimensional information of a sample using computer tomography. There is nothing to suggest the use of optics such as an incident beam having a first polarization and a reflected beam from the surface having a second polarization different from the first polarization, with the beams being normally incident to the surface. In fact, Toida disparages the reflection type of laser beam scanning microscopes, stating that information representing constituents and/or functions of the samples cannot be obtained (column 3, lines 35-38). A helical scanning is provided by a laser beam in Toida. This is much different than the scanning performed by Rosencwaig.

It is completely inappropriate to simply combine disparate elements of Toida and, Rosencwaig to re-assemble the present invention, using the claims of the invention as a road map for the reconstruction. Accordingly, the rejections of amended claims 1 and 11 are therefore not factually or legally viable. As such, the rejections of the claims under 35 U.S.C. §103 based upon a combination of Rosencwaig and Toida should be reconsidered and withdrawn and such action is courteously solicited. Claims 5-10 and 15-18 further define and limit claims 1 and 11,

respectively. Therefore these other claims should also be considered allowable over the combination of Rosencwaig and Toida.

For similar reasons as discussed above, new claims 21 and 22 patentably define over the combination of Rosencwaig and Toida. Allowance of these new claims are respectfully requested.

In light of the amendments and remarks above, this application should be considered in condition for allowance and the case passed to issue. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 502624 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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